

HAZARD ANALYSIS

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Project Name

Hazard Analysis

1. Experiment Program Description:

A brief Description of the project – with enough information to give the review committee an understanding of the scope of the project and the equipment involved.

2. Organization and Responsibilities:

3. Facility Description:

3.1. Location

Location of the equipment/facility at Argonne (building / room)

3.2. Experimental equipment

A brief description of the equipment used in the project

3.2.1. Item 1

description

3.2.2. Item 2

description

Figure 1

Include figure(s) of equipment if helpful

3.3. Controls

A description of the equipment controls used in the project, if that would help explain the equipment.

3.4. Support and service equipment-

In addition to the equipment mentioned above, the following will be used:

A description of any electrical, water, utility or safety systems that will be used in the project – if this would clarify the scope of the project.

4. Operating and Maintenance Procedures:

4.1. Operating Procedures

4.2. Maintenance Procedures

4.3. Experiment Procedure

5. Training:

List any training necessary which is unique to this projector the use of this equipment (laser, radiation, chemical, electrical, etc, training.)

6. Hazards for Normal Operations

The checklist below is derived from the ES&H Manual. While it appears to be rather extensive, it is a handy listing of the types of hazards that may be present when we work. Use it to list any hazards present in the set-up, running and removal of the project. Mark the “YES” or “NO” column for each hazard listed.

For each “YES” marked, explain below the form what the hazard consists of. Use the “REMARKS” column to direct the reader to the sub-section explaining the hazard.

Note that this section addresses the hazards associated with normal operations of the Project or Facility. The hazards associated with postulated accidents are addressed in Section 7.

TABLE 6-1
POTENTIAL HAZARDS CHECKLIST
 (ANL-E ES&H Manual Section 21.2, Appendix A)

POTENTIAL HAZARD	YES	NO	REMARKS
Radiation and Electromagnetic Fields			
<i>Ionizing Radiation</i>			
Alpha			
Beta			
Gamma and/or X-Ray			
Neutron			
Proton			
Subatomic			
<i>Nonionizing Radiation</i>			
Laser			
Visible Light			
Ultraviolet			
Microwave			
Radiofrequency			
Electric Fields			
Magnetic Fields			
Chemicals and/or Materials			
<i>Health and Injury Hazards</i>			
Carcinogens			
Mutagens			
Teratogens			
Toxins			
Corrosives			
Irritants, Allergens, and/or Sensitizers			
Volatile Solvents			
<i>Combustion and Injury Hazards</i>			
Flammable Liquids and/or Solvents			
Metallic Combustibles			
Flammable Gases			
Compressed Oxygen			
Open Flame or Sparks			
Combustible Materials			
Explosives			
Flammable Suspended Dust Particles			
Pyrophoric Chemicals			
<i>Respiratory or Contact Injury Hazards</i>			
Cryogenics			
Thermal (High or Low)			
Dust, Particulates, and Fibers			
Asbestos			
Explosives			
Reactive Chemicals			
Compressed Gases			

POTENTIAL HAZARD	YES	NO	REMARKS
Pressure and/or Vacuum Systems			
Steam			
Asphyxiation			
Stored Energy Not Elsewhere Addressed			
Hydraulic Energy			
Kinetic Energy			
Mechanical Energy			
Potential Energy			
Other			
Biohazards			
Virus			
Bacteria			
Human Tissues and/or Body Fluids			
Animals and Animal Tissue			
Electrical			
High Voltage Devices			
Storage Devices			
Static Charge			
Lightning Protection			
Grounding			
Exposed Conductors			
Mechanical			
Lifting Devices			
Low Friction Surfaces			
Load-Bearing Components			
Vibration			
Sharp Points or Edges			
Moving Parts			
Pinch Points			
Ladders, Scaffolds, and/or Platforms			
Work Environment			
Activities at Known or Suspected Hazardous Waste Sites			
Use of Self-Contained Breathing Apparatus			
Temperature or Other Climatic Extremes			
Severe Weather			
Noise			
Confined Spaces			
Others (Tripping Hazards)			

6.1. First hazard listed

6.2. Second hazard listed, etc.

7. Hazards for Postulated Accidents:

Include here the potential accidents that can occur when setting up, using or taking down the project/equipment. The list above can be used as a guide.

8. Safety Systems and Equipment:

List any safety systems or equipment installed specifically for this project, or which will have direct consequences for the potential hazards listed for this project or equipment.

9. Safety Procedures

List any safety procedures created for the project or equipment.

10. Environmental Compliance Procedures:

List any procedures you needed to create (if any) for environmental compliance purposes.

11. Emergency Procedures:

List any emergency procedures you have created to handle the accidents listed in #7 above.

12. List of Applicable Documents